

Amendments to the Claims

Following is a complete listing of the claims pending in this application including any amendments:

1. (Currently amended) A system for palliatively treating a pain-causing tumor on or in a bone, comprising:

an instrument having a distal-end structure adapted to be inserted into the bone tumor, said ~~tip~~distal-end structure being activatable to ablate tumor tissue, and connecting structure for connecting said distal-end structure to an activating device, and

a source of polymer liquid operatively connected to the instrument for delivery of the liquid through the instrument and into the tumor.

2. (Original) The system of claim 1, wherein the instrument includes a probe with a distal end, and at least one electrode movable from a retracted position within the probe to a deployed position extending from the probe's distal end, forming said distal-end structure when deployed.

3. (Original) The system of claim 2, wherein said instrument includes a plurality of curved, deployable electrodes which, when deployed, form an array of deployed electrodes that defines a substantially two-dimensional surface expanse or a three-dimensional volume within the tumor.

4. (Original) The system of claim 3, for use in treating a bone tumor on the exterior or interior surface of a compact region of a bone, wherein said electrodes, when deployed, form an array that defines a two-dimensional expanse that is coextensive with a portion of the surface of the compact bone region surrounded by said tumor.

5 (Currently amended) The system of claim 3, wherein said electrodes, when deployed form a three-dimensional volume that encompasses said distal ~~tip~~end, or a three-dimensional volume that converges at said distal ~~tip~~end.

6. (Original) The system of claim 3, wherein the curvature of at least one of said electrodes is shapable, prior to use, such that the electrode(s), when inserted into the tumor, define a selected geometry within the tumor.

7. (Original) The system of claim 3, wherein at least one of said electrodes is a needle forming a conduit through which liquid can be injected into the tumor.

8. (Original) The system of claim 3, wherein said probe includes a conduit through which fluid can be injected into the region of the tumor.

9. (Original) The system of claim 1, wherein said connecting structure is adapted to connect said distal-end structure to a source of RF current.

10. (Currently amended) A method of palliatively treating a pain-causing tumor on or in a bone, comprising:

locating the position of the bone tumor,

positioning against or adjacent the located bone tumor, ~~the~~a distal end of an instrument having a distal-end structure which can be activated to ablate tissue, and

with said ~~tip~~distal end inserted into the bone tumor, activating the ~~tip~~distal-end structure under conditions effective to ablate at least a portion of the tumor; and  
injecting a polymer liquid into the tumor.

11. (Original) The method of claim 10, wherein said distal-end structure includes at least one electrode, and said activating includes applying an RF current to said electrode(s).

12. (Original) The method of claim 10, wherein said instrument includes a probe with a distal end, and at least one electrode movable from a retracted position within the probe to a deployed position extending from the probe's distal end, to form said distal-end structure when deployed, and said method further includes deploying said electrode(s) when the distal end of the probe is positioned against or adjacent the bone tumor.

13. (Original) The method of claim 12, wherein said instrument includes a plurality of curved, deployable electrodes, and said deploying is effective to create an array of deployed electrodes that defines a substantially two-dimensional surface expanse or a three-dimensional volume within the tumor.

14. (Original) The method of claim 13, for use in treating a bone tumor on the exterior or interior surface of a compact region of a bone, wherein said electrodes, when deployed, create an array that defines a two-dimensional expanse that is coextensive with a portion of the surface of the compact bone region surrounded by said tumor.

15 (Currently amended) The method of claim 13, wherein said electrodes, when deployed, form a three-dimensional volume that encompasses said probe distal tipend.

16. (Currently amended) The method of claim 13, wherein said electrodes, when deployed form a three-dimensional volume that converges at said probe distal tipend.

17. (Original) The method of claim 13, wherein the curvature of at least one of said electrodes is shapable, prior to said positioning, such that the electrode(s), when inserted into the tumor, define a selected geometry within the tumor.

18. (Currently amended) The method of claim 10, wherein said distal-end structure includes at least one electrode, said activating includes applying an RF current to said electrode(s), ~~and which further includes injecting a liquid into the tumor.~~

19. (Currently amended) The method of claim ~~48~~10, further comprising~~wherein said injecting includes~~ injecting an electrolyte solution into the tumor, prior to or during said activating step, to enhance the conductivity of the tumor during the applying of RF current to the electrode(s).

20. (Currently amended) The method of claim ~~48~~10, wherein said injecting includes injecting ~~a~~the polymer liquid into the tumor, before, during or following said activating step, such that the needle and surrounding tumor region is at a temperature that allows introduction of the polymer liquid~~solution~~ through the needle and hardening at the site of injection.

21. (Currently amended) The method of claims ~~19 or 20~~10 or 19, wherein at least one of said electrode(s) is a needle through which at least one of said polymer liquid and electrolyte solution can be injected into the tumor.

22. (Currently amended) The method of claim ~~20~~10, wherein said polymer liquid is a polymethylmethacrylate.

23. (Currently amended) The method of claim ~~22~~10, wherein said injecting includes injecting the polymer liquid through an electrode needle, and said activating

is effective to maintain the temperature of the polymer liquid above its glass transition temperature while the liquid is being injected into the tumor.

24-26 (Cancelled)